

10/528847

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cat His	ctc Leu	gtc Val	gct Ala 1780	gaa Glu	tct Ser	gat Asp	ctc Leu	gat Asp 1785	ggt Gly	gct Ala	ctc Leu	aag Lys	gtc Val 1790	atc Ile	8188
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cct Pro	ccc Pro	cga Arg	ggt Gly 1825	cct Pro	tac Tyr	gat Asp	cct Pro	cga Arg 1830	tgg Trp	ttg Leu	ctt Leu	gaa Glu	gga Gly 1835	aag Lys	8323
ccg Pro	gat Asp	gaa Glu	ggc Gly 1840	ttg Leu	act Thr	ggt Gly	ctt Leu	ttc Phe 1845	gac Asp	aag Lys	gga Gly	tct Ser	ttc Phe 1850	atg Met	8368
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cga Arg	ctg Leu	gga Gly	ggc Gly 1870	att Ile	cct Pro	atg Met	ggt Gly	gtt Val 1875	att Ile	gct Ala	gtc Val	gaa Glu	acc Thr 1880	agg Arg	8458
acg Thr	acc Thr	gag Glu	aag Lys 1885	atc Ile	atc Ile	gct Ala	gcc Ala	gat Asp 1890	cct Pro	gcc Ala	aac Asn	cct Pro	gca Ala 1895	gct Ala	8503
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gtt Val	gtc Val	ccc Pro	aac Asn 1975	gga Gly	gag Glu	ctt Leu	cgt Arg	gga Gly 1980	gga Gly	gct Ala	tgg Trp	gtc Val	gtg Val 1985	ttg Leu	8773
gat Asp	cct Pro	act Thr	atc Ile	aac Asn	ctt Leu	gcc Ala	aag Lys	atg Met	gag Glu	atg Met	tac Tyr	gct Ala	gat Asp	gaa Glu	8818

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gag acc tat gcc tct ctc aaa gct gcc tcg aac gac tca acc aag Glu Thr Tyr Ala Ser Leu Lys Ala 2040 Ser Asn Asp Ser 2045 Thr Lys	8953	
tct gcg gag gag cga gct aag agt gct gag cta ctc aag gca aga Ser Ala Glu 2050 Arg Ala Lys Ser 2055 Glu Leu Leu Lys 2060 Ala Arg	8998	
gag act cta ctt caa ccg acg tac ttg cag att gca cac ctt tac Glu Thr Leu 2065 Gln Pro Thr Tyr Leu 2070 Gln Ile Ala His 2075 Leu Tyr	9043	
gct gat ctc cat gat cgt gtc gga cga atg gag gcc aag ggt tgc Ala Asp Leu 2080 Asp Arg Val Gly Arg 2085 Met Glu Ala Lys 2090 Gly Cys	9088	
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cga caa aac att ctc gac tct gtc gtc cag act gac ctc act gat Arg Gln Asn 2135 Ile Leu Asp Ser Val 2140 Val Gln Thr Asp 2145 Leu Thr Asp	9326	
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## 0185663SeqList.txt

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Leu Glu Asn Ala Pro Pro Ser Ser Val Thr Asp Phe Val Arg Ser Gln
20 25 30

gat ggt cac acg gtc atc acc aaa gtc ctc att gcc aac aac gga atc 144
Asp Gly His Thr Val Ile Thr Lys Val Leu Ile Ala Asn Asn Gly Ile
35 40 45

gct gct gta aaa gag atc cga tca gtt cgt aaa tgg gct tac gag acg 192
Ala Ala Val Lys Glu Ile Arg Ser Val Arg Lys Trp Ala Tyr Glu Thr
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gaa gtt cct gga gga act aac aac aac aat cac tct aac gtc gac ctc Glu Val Pro Gly Gly Thr Asn Asn Asn Asn His Ser Asn Val Asp Leu 100 105 110			336
atc gtt gac att gcc gag cga ttc aat ata cat gct gtt tgg gct gga Ile Val Asp Ile Ala Glu Arg Phe Asn Ile His Ala Val Trp Ala Gly 115 120 125			384
tgg ggt cac gct tcg gaa aac ccc aga ctt ccc gag tct ctc gcc gcc Trp Gly His Ala Ser Glu Asn Pro Arg Leu Pro Glu Ser Leu Ala Ala 130 135 140			432
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tcc ctt gga gac aag att tct tcg acc atc gtt gcc cag tct gcc cag Ser Leu Gly Asp Lys Ile Ser Ser Thr Ile Val Ala Gln Ser Ala Gln 165 170 175			528
gtg ccg tgt atg gcc tgg tct gga tca ggc atc act gat aca gag ctc Val Pro Cys Met Ala Trp Ser Gly Ser Gly Ile Thr Asp Thr Glu Leu 180 185 190			576
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tgt gta aag acg gtg gag gat ggt ttg gtg cga gcc gag aag atc ggt Cys Val Lys Thr Val Glu Asp Gly Leu Val Arg Ala Glu Lys Ile Gly 210 215 220			672
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gct atc tct ttg ttc ggt cga gat tgc tct gtt cag cga cga cat cag Ala Ile Ser Leu Phe Gly Arg Asp Cys Ser Val Gln Arg Arg His Gln 290 295 300			912
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gtt Val	agt Ser	gcc Ala	ggt Gly 340	acc Thr	gtc Val	gaa Glu	tac Tyr	ctc Leu 345	tac Tyr	tct Ser	cac His	gcc Ala	gac Asp 350	gac Asp	tca Ser	1056
ttc Phe	ttc Phe	ttc Phe 355	ctc Leu	gaa Glu	ctc Leu	aac Asn	cct Pro 360	cga Arg	ctt Leu	caa Gln	gtc Val	gag Glu 365	cac His	cct Pro	act Thr	1104
acc Thr	gag Glu 370	atg Met	gtc Val	tcg Ser	ggt Gly	gtc Val 375	aac Asn	ctt Leu	ccc Pro	gct Ala	gct Ala 380	cag Gln	ctt Leu	cag Gln	att Ile	1152
gct Ala 385	atg Met	ggt Gly	atc Ile	cct Pro	ctt Leu 390	tct Ser	cga Arg	att Ile	cgg Arg	gat Asp 395	att Ile	cga Arg	gtc Val	ctc Leu	tac Tyr 400	1200
ggt Gly	ctc Leu	gat Asp	ccc Pro	cac His 405	act Thr	gtt Val	tcc Ser	gag Glu	atc Ile 410	gac Asp	ttc Phe	gac Asp	agc Ser	agc Ser 415	aga Arg	1248
gcg Ala	gag Glu	tct Ser	gtc Val 420	cag Gln	act Thr	cag Gln	agg Arg	aag Lys 425	cct Pro	agg Arg	ccc Pro	aag Lys	ggt Gly 430	cac His	gtc Val	1296
att Ile	gcc Ala	tgt Cys 435	cga Arg	atc Ile	acg Thr	agt Ser	gaa Glu 440	aac Asn	ccc Pro	gat Asp	gag Glu	ggg Gly 445	ttc Phe	aag Lys	ccg Pro	1344
tct Ser	gcc Ala 450	gga Gly	gat Asp	atc Ile	caa Gln	gag Glu 455	ttg Leu	aac Asn	ttc Phe	aga Arg	agt Ser 460	aat Asn	act Thr	aac Asn	gtc Val	1392
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gat Asp	tct Ser	caa Gln	ttc Phe	ggt Gly 485	cac His	gtg Val	ttt Phe	gct Ala	tat Tyr 490	ggc Gly	tcc Ser	gac Asp	cga Arg	acg Thr 495	act Thr	1488
gcc Ala	aga Arg	aag Lys	aat Asn 500	atg Met	gtt Val	atc Ile	gcc Ala	ttg Leu 505	aaa Lys	gag Glu	ctt Leu	tcc Ser	att Ile 510	cga Arg	gga Gly	1536
gac Asp	ttc Phe	cga Arg 515	acc Thr	act Thr	gtc Val	gag Glu	tat Tyr 520	ctt Leu	atc Ile	act Thr	ctt Leu	ctt Leu 525	gag Glu	acg Thr	agc Ser	1584
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act Thr 545	aac Asn	aag Lys	ctt Leu	aca Thr	tct Ser 550	gag Glu	agg Arg	cct Pro	gat Asp	cca Pro 555	tca Ser	ctg Leu	gcc Ala	gtt Val	att Ile 560	1680

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gaa Glu	tac Tyr	cga Arg 580	cga Arg 580	gta Val	ttg Leu	gac Asp	aag Lys	gga Gly 585	cag Gln	gtt Val	ccc Pro	tcc Ser	aag Lys 590	gac Asp	act Thr	1776
ctc Leu	aag Lys	aca Thr 595	gtg Val	ttc Phe	act Thr	ctt Leu	gat Asp 600	ttc Phe	atc Ile	tat Tyr	gag Glu	ggt Gly 605	gtt Val	cgg Arg	tac Tyr	1824
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aac Asn 625	gga Gly	gga Gly	aag Lys	acc Thr	gtg Val 630	gtg Val	tcc Ser	atc Ile	cga Arg	cct Pro 635	ttg Leu	gcc Ala	gat Asp	ggt Gly	gga Gly 640	1920
atg Met	ctc Leu	gtt Val	ctt Leu	ctc Leu 645	gat Asp	ggc Gly	cga Arg	tcc Ser	cac His 650	act Thr	ctc Leu	tac Tyr	tgg Trp	agg Arg 655	gag Glu	1968
gaa Glu	gtc Val	ggt Gly	acc Thr 660	ctc Leu	cga Arg	att Ile	cag Gln 665	gta Val 665	gac Asp	gca Ala	aag Lys	act Thr	tgc Cys 670	ctg Leu	att Ile	2016
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cag Gln	gag Glu	tcc Ser	ggt Gly	cac His 725	gtt Val	cag Gln	ttt Phe	gtc Val 730	aag Lys 730	caa Gln	gcc Ala	ggt Gly	gtg Val	acc Thr 735	gtc Val	2208
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gag Glu 785	tcg Ser	ata Ile	tac Tyr	tcg Ser	gtc Val 790	ttg Leu	gat Asp	gga Gly	tac Tyr	gag Glu 795	agt Ser	gac Asp	tcc Ser	act Thr	gca Ala 800	2400
aca Thr	atc Ile	ctc Leu	cga Arg	tca Ser 805	ttc Phe	tct Ser	gaa Glu	aac Asn	ctt Leu 810	tat Tyr	gat Asp	cct Pro	gat Asp	ctt Leu 815	gct Ala	2448

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gcc gat ctt gag gag agc att cga gag gtc atc agc gaa gct cag tcg Ala Asp Leu Glu Glu Ser Ile Arg Glu Val Ile Ser Glu Ala Gln Ser 835 840 845	2544
aag cct cac gcc gag ttc cct gga tca aag atc ctc aaa gtc gtc gag Lys Pro His Ala Glu Phe Pro Gly Ser Lys Ile Leu Lys Val Val Glu 850 855 860	2592
cgg tac atc gat aat ttg cga cct cag gag agg gct atg gtc cga act Arg Tyr Ile Asp Asn Leu Arg Pro Gln Glu Arg Ala Met Val Arg Thr 865 870 875 880	2640
cag atc gaa ccc atc gtt ggt att gct gag aag aac gtt ggc ggt cct Gln Ile Glu Pro Ile Val Gly Ile Ala Glu Lys Asn Val Gly Gly Pro 885 890 895	2688
aag ggt tac gcc tct tac gtc tta gct acc atc ctt caa aag ttc ttg Lys Gly Tyr Ala Ser Tyr Val Leu Ala Thr Ile Leu Gln Lys Phe Leu 900 905 910	2736
gcc gtt gag gcc gtt ttt gct act ggt agt gaa gag gcc att gtt ctc Ala Val Glu Ala Val Phe Ala Thr Gly Ser Glu Glu Ala Ile Val Leu 915 920 925	2784
caa ctt cga gat gaa aac cga gaa tct ttg aac gac gtc ctt ggt ctc Gln Leu Arg Asp Glu Asn Arg Glu Ser Leu Asn Asp Val Leu Gly Leu 930 935 940	2832
gtc ctg gct cac tcg cgt ctc agc gct cga tcc aag ctt gtt ctc tcc Val Leu Ala His Ser Arg Leu Ser Ala Arg Ser Lys Leu Val Leu Ser 945 950 955 960	2880
gtc ttt gat ctg atc aag tct atg cag ctc ctc aac aac act gag ggt Val Phe Asp Leu Ile Lys Ser Met Gln Leu Leu Asn Asn Thr Glu Gly 965 970 975	2928
tct ttc ctt cat aag act atg aaa gcg ctt gcc gac atg ccc acc aag Ser Phe Leu His Lys Thr Met Lys Ala Leu Ala Asp Met Pro Thr Lys 980 985 990	2976
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tct tgc tct ctt ccc tct tac gag gag agg ttg ttc cag atg gaa Ser Cys Ser Leu Pro Ser Tyr Glu Glu Arg Leu Phe Gln Met Glu 1010 1015 1020	3069
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ctt Leu	gct Ala	agt Ser	ttg Leu 1080
acc Thr	gtc Val	tac Tyr	3249
ggt Val	ctt Leu 1085	cga Arg	gct Ala
tac Tyr	cga Arg	gag Glu 1090	tac Tyr
agt Ser	att Ile	ctt Leu	gat Asp 1095
atg Met	caa Gln	cat His	3294
gag Glu	caa Gln 1100	ggt Gly	cag Gln
gat Asp	ggc Gly	gct Ala 1105	gct Ala
gga Gly	gtc Val	atc Ile	act Thr 1110
tgg Trp	cga Arg	ttc Phe	3339
aag Lys	ctc Leu 1115	aac Asn	cag Gln
ccc Pro	atc Ile	gct Ala 1120	gag Glu
tct Ser	tct Ser	act Thr	ccc Pro 1125
cga Arg	ggt Val	gac Asp	3384
tcg Ser	aat Asn 1130	cga Arg 1135	gtc Val
ggt Gly	tcg Ser	ctt Leu	tct Ser 1140
gat Asp	ttg Leu	acc Thr	3429
tac Tyr	aag Lys 1145	atc Ile	aag Lys
cag Gln	agt Ser	cag Gln 1150	acc Thr
gag Glu	ccc Pro	ctc Leu	cga Arg 1155
gct Ala	ggt Gly	gtc Val	3474
atg Met	acg Thr 1160	agc Ser	ttc Phe
aac Asn	aac Asn	ttg Leu 1165	aag Lys
gag Glu	ggt Val	cag Gln	gac Asp 1170
gga Gly	ctc Leu	ttg Leu	3519
aat Asn	ggt Val 1175	ctg Leu	tct Ser
tct Ser	ttc Phe	ttc Phe	cct Pro 1180
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cag Gln	gac Asp	agt Ser 1195	gcc Ala
atg Met	ccc Pro	aac Asn	ggt Val 1200
ctc Leu	aac Asn	att Ile	3609
gct Ala	atc Ile 1205	cgg Arg	gct Ala
gtc Val	ttc Phe	gag Glu	gag Glu 1210
aag Lys	gac Asp	gac Asp	atg Met
tct Ser	gat Asp	ctt Leu	gat Asp
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ggt Val	gag Glu	tcg Ser 1225	ctg Leu
gta Val	atg Met	cag Gln	atg Met 1230
tct Ser	gcc Ala	gag Glu	3699
atc Ile	cag Gln 1235	aag Lys	aag Lys
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gtt Val	gtc Val	acc Thr	ttc Phe
ttg Leu	gtt Val	tgc Cys	cga Arg
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aag Lys	ggc Gly 1250	ggt Val	tac Tyr
ccc Pro	tcc Ser	tac Tyr 1255	ttc Phe
acc Thr	ttc Phe	aga Arg	caa Gln 1260
gag Glu	ggt Gly	gcc Ala	3789
cag Gln	ggc Gly 1265	ccc Pro	tgg Trp
aga Arg	gag Glu	gag Glu 1270	gag Glu
aag Lys	att Ile	cga Arg	aac Asn 1275
atc Ile	gag Glu	cct Pro	3834
gct Ala	cta Leu 1280	gcc Ala	agt Ser
cag Gln	ctt Leu	gag Glu 1285	ctc Leu
aac Asn	cga Arg	ctc Leu	tcg Ser 1290
aat Asn	ttc Phe	aag Lys	3879
gtc acc	cct atc	ttc gta	gac aac
aga cag	atc cac	atc aac	3924

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Gly	Val	Gly	Lys	Glu	Asn	Ser	Ser	Asp	Val	Arg	Phe	Phe	Ile	Arg	
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Ala	Leu	Val	Arg	Pro	Gly	Arg	Val	Gln	Gly	Ser	Met	Lys	Ala	Ala	
	1325					1330					1335				
gag	tat	ctc	atc	tcc	gag	tgc	gat	cga	ctg	ctc	act	gat	atc	ctg	4059
Glu	Tyr	Leu	Ile	Ser	Glu	Cys	Asp	Arg	Leu	Leu	Thr	Asp	Ile	Leu	
	1340					1345					1350				
gac	gcc	ttg	gag	gtt	gtt	gga	gcc	gag	act	cga	aac	gcc	gat	tgc	4104
Asp	Ala	Leu	Glu	Val	Val	Gly	Ala	Glu	Thr	Arg	Asn	Ala	Asp	Cys	
	1355					1360					1365				
aac	cat	gtt	gga	att	aac	ttc	atc	tat	aac	gtt	ctt	gtc	gac	ttc	4149
Asn	His	Val	Gly	Ile	Asn	Phe	Ile	Tyr	Asn	Val	Leu	Val	Asp	Phe	
	1370					1375					1380				
gac	gac	gtc	cag	gag	gcc	ctt	gcc	ggg	ttc	att	gag	agg	cac	gga	4194
Asp	Asp	Val	Gln	Glu	Ala	Leu	Ala	Gly	Phe	Ile	Glu	Arg	His	Gly	
	1385					1390					1395				
aag	agg	ctt	tgg	cga	ctt	cga	gtg	acc	gct	tct	gaa	atc	cga	atg	4239
Lys	Arg	Leu	Trp	Arg	Leu	Arg	Val	Thr	Ala	Ser	Glu	Ile	Arg	Met	
	1400					1405					1410				
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Val	Leu	Glu	Asp	Asp	Glu	Gly	Asn	Val	Thr	Pro	Ile	Arg	Cys	Cys	
	1415					1420					1425				
att	gag	aac	gtt	tct	ggt	ttc	gtc	gtg	aag	tac	cac	gcc	tac	cag	4329
Ile	Glu	Asn	Val	Ser	Gly	Phe	Val	Val	Lys	Tyr	His	Ala	Tyr	Gln	
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Glu	Val	Glu	Thr	Glu	Lys	Gly	Thr	Thr	Ile	Leu	Lys	Ser	Ile	Gly	
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Asp	Leu	Gly	Pro	Leu	His	Leu	Gln	Pro	Val	Asn	His	Ala	Tyr	Gln	
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Thr	Lys	Asn	Ser	Leu	Gln	Pro	Arg	Arg	Tyr	Gln	Ala	His	Leu	Val	
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Gly	Thr	Thr	Tyr	Val	Tyr	Asp	Tyr	Pro	Asp	Leu	Phe	Val	Gln	Ser	
	1490					1495					1500				
ttg	cgc	aag	gtt	tgg	gct	gag	gct	gct	gct	aag	att	cct	cac	ctc	4554
Leu	Arg	Lys	Val	Trp	Ala	Glu	Ala	Ala	Ala	Lys	Ile	Pro	His	Leu	
	1505					1510					1515				
cgg	gtg	cct	agc	gag	cct	ctt	acc	gct	acc	gag	ttg	gtt	ctc	gat	4599
Arg	Val	Pro	Ser	Glu	Pro	Leu	Thr	Ala	Thr	Glu	Leu	Val	Leu	Asp	
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tat Tyr	ccc Pro 1565	aag Lys	ggt Gly	cga Arg	cga Arg	gta Val 1570	ggt Val	gcc Ala	att Ile	gcc Ala	aac Asn 1575	gat Asp	atc Ile	acc Thr	4734
ttc Phe	aag Lys 1580	att Ile	gga Gly	tcc Ser	ttt Phe	ggt Gly 1585	cct Pro	aag Lys	gaa Glu	gac Asp	gat Asp 1590	tac Tyr	ttc Phe	ttc Phe	4779
aag Lys	gct Ala 1595	act Thr	gaa Glu	att Ile	gcc Ala	aag Lys 1600	aag Lys	ctg Leu	ggc Gly	ctt Leu	cct Pro 1605	cga Arg	att Ile	tac Tyr	4824
ctc Leu	tct Ser 1610	gcc Ala	aac Asn	agt Ser	gga Gly	gct Ala 1615	aga Arg	ctc Leu	ggt Gly	atc Ile	gcg Ala 1620	gag Glu	gag Glu	ctc Leu	4869
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atg Met	ggt Gly 1640	att Ile	aag Lys	tat Tyr	cta Leu	tac Tyr 1645	ttg Leu	acc Thr	cct Pro	gaa Glu	act Thr 1650	tta Leu	tcc Ser	act Thr	4959
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gac Asp	ggc Gly 1670	gag Glu	cga Arg	cga Arg	cac His	aag Lys 1675	atc Ile	acc Thr	gcc Ala	atc Ile	atc Ile 1680	ggt Gly	ctt Leu	gca Ala	5049
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ctc Leu	gtt Val 1715	act Thr	gcc Ala	cga Arg	tcg Ser	gtc Val 1720	ggt Gly	atc Ile	gga Gly	gct Ala	tac Tyr 1725	ttg Leu	gtt Val	cga Arg	5184
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act Thr	gga Gly 1745	gct Ala	cag Gln	tct Ser	ctc Leu	aac Asn 1750	aag Lys	gtg Val	ctt Leu	gga Gly	cga Arg 1755	gag Glu	gtt Val	tac Tyr	5274
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aag Lys	gtc Val 1790	atc Ile	cag Gln	tgg Trp	ctc Leu	tcg Ser 1795	tat Tyr	gtg Val	ccc Pro	gag Glu	cga Arg 1800	aag Lys	ggc Gly	aag Lys	5409
gcc Ala	att Ile 1805	cct Pro	atc Ile	tgg Trp	cct Pro	tcc Ser 1810	gag Glu	gac Asp	cct Pro	tgg Trp	gac Asp 1815	cga Arg	act Thr	gtg Val	5454
acc Thr	tac Tyr 1820	gag Glu	cct Pro	ccc Pro	cga Arg	ggt Gly 1825	cct Pro	tac Tyr	gat Asp	cct Pro	cga Arg 1830	tgg Trp	ttg Leu	ctt Leu	5499
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gtc Val	gtg Val 1985	ttg Leu	gat Asp	cct Pro	act Thr	atc Ile 1990	aac Asn	ctt Leu	gcc Ala	aag Lys	atg Met 1995	gag Glu	atg Met	tac Tyr	5994
gct Ala	gat Asp	gaa Glu	acc Thr	gct Ala	cga Arg	gga Gly	gga Gly	att Ile	ctc Leu	gag Glu	ccg Pro	gaa Glu	ggt Gly	atc Ile	6039

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cac His ctt Leu tac Tyr gct Ala gat Asp ctc Leu cat His gat Asp cgt Arg gtc Val gga Gly cga Arg atg Met gag Glu gcc Ala	2075 2080	2085	6264
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ttc Phe tac Tyr tgg Trp cga Arg ctt Leu cga Arg cga Arg cgt Arg ctc Leu aac Asn gat Asp gag Glu cac His atc Ile ctg Leu	2105 2110	2115	6354
tct Ser aag Lys ttc Phe gct Ala gct Ala gcc Ala aac Asn ccg Pro gat Asp ctt Leu act Thr ctc Leu gag Glu gag Glu cga Arg	2120 2125	2130	6399
caa Gln aac Asn att Ile ctc Leu gac Asp tct Ser gtc Val gtc Val cag Gln act Thr gac Asp ctc Leu act Thr gat Asp gac Asp	2135 2140	2145	6444
cga Arg gcc Ala acc Thr gct Ala gaa Glu tgg Trp att Ile gag Glu cag Gln tct Ser gca Ala gaa Glu gag Glu att Ile gct Ala	2150 2155	2160	6489
gct Ala gcc Ala ggt Val gcc Ala gaa Glu gtc Val cga Arg tcc Ser acc Thr tac Tyr gtg Val tcg Ser aat Asn aag Lys att Ile	2165 2170	2175	6534
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gtc Val gct Ala gtc Val ttg Leu agc Ser act Thr ttg Leu aat Asn gag Ala gaa Glu gac Asp aag Lys aag Lys gcc Ala ctt Leu	2195 2200	2205	6624
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 <213> Phaffia rhodozyma



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Asp Gly His Thr Val Ile Thr Lys Val Leu Ile Ala Asn Asn Gly Ile
35          40          45

Ala Ala Val Lys Glu Ile Arg Ser Val Arg Lys Trp Ala Tyr Glu Thr
50          55          60

Phe Gly Asp Glu Arg Ala Ile Glu Phe Thr Val Met Ala Thr Pro Glu
65          70          75          80

Asp Leu Lys Val Asn Cys Asp Tyr Ile Arg Met Ala Asp Arg Val Val
85          90          95

Glu Val Pro Gly Gly Thr Asn Asn Asn Asn His Ser Asn Val Asp Leu
100         105         110

Ile Val Asp Ile Ala Glu Arg Phe Asn Ile His Ala Val Trp Ala Gly
115         120         125

Trp Gly His Ala Ser Glu Asn Pro Arg Leu Pro Glu Ser Leu Ala Ala
130         135         140

Ser Lys Asn Lys Ile Val Phe Ile Gly Pro Pro Gly Ser Ala Met Arg
145         150         155         160

Ser Leu Gly Asp Lys Ile Ser Ser Thr Ile Val Ala Gln Ser Ala Gln
165         170         175

Val Pro Cys Met Ala Trp Ser Gly Ser Gly Ile Thr Asp Thr Glu Leu
180         185         190

Ser Pro Gln Gly Phe Val Thr Val Pro Asp Gly Pro Tyr Gln Ala Ala
195         200         205

Cys Val Lys Thr Val Glu Asp Gly Leu Val Arg Ala Glu Lys Ile Gly
210         215         220

Leu Pro Val Met Ile Lys Ala Ser Glu Gly Gly Gly Gly Lys Gly Ile
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275 280 285

Ala Ile Ser Leu Phe Gly Arg Asp Cys Ser Val Gln Arg Arg His Gln  
290 295 300

Lys Ile Ile Glu Glu Ala Pro Val Thr Ile Ala Arg Pro Glu Arg Phe  
305 310 315 320

Glu Glu Met Glu Lys Ala Ala Val Arg Leu Ala Lys Leu Val Gly Tyr  
325 330 335

Val Ser Ala Gly Thr Val Glu Tyr Leu Tyr Ser His Ala Asp Asp Ser  
340 345 350

Phe Phe Phe Leu Glu Leu Asn Pro Arg Leu Gln Val Glu His Pro Thr  
355 360 365

Thr Glu Met Val Ser Gly Val Asn Leu Pro Ala Ala Gln Leu Gln Ile  
370 375 380

Ala Met Gly Ile Pro Leu Ser Arg Ile Arg Asp Ile Arg Val Leu Tyr  
385 390 395 400

Gly Leu Asp Pro His Thr Val Ser Glu Ile Asp Phe Asp Ser Ser Arg  
405 410 415

Ala Glu Ser Val Gln Thr Gln Arg Lys Pro Arg Pro Lys Gly His Val  
420 425 430

Ile Ala Cys Arg Ile Thr Ser Glu Asn Pro Asp Glu Gly Phe Lys Pro  
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Ser Ala Gly Asp Ile Gln Glu Leu Asn Phe Arg Ser Asn Thr Asn Val  
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465 470 475 480

Asp Ser Gln Phe Gly His Val Phe Ala Tyr Gly Ser Asp Arg Thr Thr  
485 490 495

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515 520 525

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530 535 540

Thr Asn Lys Leu Thr Ser Glu Arg Pro Asp Pro Ser Leu Ala Val Ile  
545 550 555 560

Cys Gly Ala Ile Val Lys Ala His Val Ala Ser Glu Asn Cys Trp Ala  
565 570 575

Glu Tyr Arg Arg Val Leu Asp Lys Gly Gln Val Pro Ser Lys Asp Thr  
580 585 590

Leu Lys Thr Val Phe Thr Leu Asp Phe Ile Tyr Glu Gly Val Arg Tyr  
595 600 605

Asn Phe Thr Ala Ala Arg Ala Ser Leu Asn Thr Tyr Arg Leu Tyr Leu  
610 615 620

Asn Gly Gly Lys Thr Val Val Ser Ile Arg Pro Leu Ala Asp Gly Gly  
625 630 635 640

Met Leu Val Leu Leu Asp Gly Arg Ser His Thr Leu Tyr Trp Arg Glu  
645 650 655

Glu Val Gly Thr Leu Arg Ile Gln Val Asp Ala Lys Thr Cys Leu Ile  
660 665 670

Glu Gln Glu Asn Asp Pro Thr Gln Leu Arg Ser Pro Ser Pro Gly Lys  
675 680 685

Ile Ile Arg Phe Leu Val Glu Ser Gly Asp His Ile Ser Ser Gly Asp  
690 695 700

Ile Tyr Ala Glu Val Glu Val Met Lys Met Ile Leu Pro Leu Ile Ala  
705 710 715 720

Gln Glu Ser Gly His Val Gln Phe Val Lys Gln Ala Gly Val Thr Val  
725 730 735

Asp Pro Gly Ala Ile Ile Gly Ile Leu Ser Leu Asp Asp Pro Thr Arg  
740 745 750

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Val Lys Lys Ala Lys Pro Phe Glu Gly Leu Leu Pro Val Thr Gly Leu  
755 760 765

Pro Asn Leu Pro Gly Asn Arg Pro His Gln Arg Leu Gln Phe Gln Leu  
770 775 780

Glu Ser Ile Tyr Ser Val Leu Asp Gly Tyr Glu Ser Asp Ser Thr Ala  
785 790 795 800

Thr Ile Leu Arg Ser Phe Ser Glu Asn Leu Tyr Asp Pro Asp Leu Ala  
805 810 815

Phe Gly Glu Ala Leu Ser Ile Ile Ser Val Leu Ser Gly Arg Met Pro  
820 825 830

Ala Asp Leu Glu Glu Ser Ile Arg Glu Val Ile Ser Glu Ala Gln Ser  
835 840 845

Lys Pro His Ala Glu Phe Pro Gly Ser Lys Ile Leu Lys Val Val Glu  
850 855 860

Arg Tyr Ile Asp Asn Leu Arg Pro Gln Glu Arg Ala Met Val Arg Thr  
865 870 875 880

Gln Ile Glu Pro Ile Val Gly Ile Ala Glu Lys Asn Val Gly Gly Pro  
885 890 895

Lys Gly Tyr Ala Ser Tyr Val Leu Ala Thr Ile Leu Gln Lys Phe Leu  
900 905 910

Ala Val Glu Ala Val Phe Ala Thr Gly Ser Glu Glu Ala Ile Val Leu  
915 920 925

Gln Leu Arg Asp Glu Asn Arg Glu Ser Leu Asn Asp Val Leu Gly Leu  
930 935 940

Val Leu Ala His Ser Arg Leu Ser Ala Arg Ser Lys Leu Val Leu Ser  
945 950 955 960

Val Phe Asp Leu Ile Lys Ser Met Gln Leu Leu Asn Asn Thr Glu Gly  
965 970 975

Ser Phe Leu His Lys Thr Met Lys Ala Leu Ala Asp Met Pro Thr Lys  
980 985 990

Ala Pro Leu Ala Ser Lys Val Ser Leu Lys Ala Arg Glu Ile Leu Ile  
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995

1000

1005

Ser	Cys 1010	Ser	Leu	Pro	Ser	Tyr 1015	Glu	Glu	Arg	Leu	Phe 1020	Gln	Met	Glu
Lys	Ile 1025	Leu	Asn	Ser	Ser	Val 1030	Thr	Thr	Ser	Tyr	Tyr 1035	Gly	Glu	Thr
Gly	Gly 1040	Gly	His	Arg	Asn	Pro 1045	Ser	Val	Asp	Val	Leu 1050	Thr	Glu	Ile
Ser	Asn 1055	Ser	Arg	Phe	Thr	Val 1060	Tyr	Asp	Val	Leu	Ser 1065	Ser	Phe	Phe
Lys	His 1070	Asp	Asp	Pro	Trp	Ile 1075	Val	Leu	Ala	Ser	Leu 1080	Thr	Val	Tyr
Val	Leu 1085	Arg	Ala	Tyr	Arg	Glu 1090	Tyr	Ser	Ile	Leu	Asp 1095	Met	Gln	His
Glu	Gln 1100	Gly	Gln	Asp	Gly	Ala 1105	Ala	Gly	Val	Ile	Thr 1110	Trp	Arg	Phe
Lys	Leu 1115	Asn	Gln	Pro	Ile	Ala 1120	Glu	Ser	Ser	Thr	Pro 1125	Arg	Val	Asp
Ser	Asn 1130	Arg	Asp	Val	Tyr	Arg 1135	Val	Gly	Ser	Leu	Ser 1140	Asp	Leu	Thr
Tyr	Lys 1145	Ile	Lys	Gln	Ser	Gln 1150	Thr	Glu	Pro	Leu	Arg 1155	Ala	Gly	Val
Met	Thr 1160	Ser	Phe	Asn	Asn	Leu 1165	Lys	Glu	Val	Gln	Asp 1170	Gly	Leu	Leu
Asn	Val 1175	Leu	Ser	Phe	Phe	Pro 1180	Ala	Tyr	His	His	Gln 1185	Asp	Phe	Thr
Gln	Arg 1190	His	Gly	Gln	Asp	Ser 1195	Ala	Met	Pro	Asn	Val 1200	Leu	Asn	Ile
Ala	Ile 1205	Arg	Ala	Phe	Glu	Glu 1210	Lys	Asp	Asp	Met	Ser 1215	Asp	Leu	Asp
Trp	Ala 1220	Lys	Ser	Val	Glu	Ser 1225	Leu	Val	Met	Gln	Met 1230	Ser	Ala	Glu

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Ile Gln Lys Lys Gly Ile Arg Arg Val Thr Phe Leu Val Cys Arg  
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Lys Gly Val Tyr Pro Ser Tyr Phe Thr Phe Arg Gln Glu Gly Ala  
1250 1255 1260

Gln Gly Pro Trp Arg Glu Glu Glu Lys Ile Arg Asn Ile Glu Pro  
1265 1270 1275

Ala Leu Ala Ser Gln Leu Glu Leu Asn Arg Leu Ser Asn Phe Lys  
1280 1285 1290

Val Thr Pro Ile Phe Val Asp Asn Arg Gln Ile His Ile Tyr Lys  
1295 1300 1305

Gly Val Gly Lys Glu Asn Ser Ser Asp Val Arg Phe Phe Ile Arg  
1310 1315 1320

Ala Leu Val Arg Pro Gly Arg Val Gln Gly Ser Met Lys Ala Ala  
1325 1330 1335

Glu Tyr Leu Ile Ser Glu Cys Asp Arg Leu Leu Thr Asp Ile Leu  
1340 1345 1350

Asp Ala Leu Glu Val Val Gly Ala Glu Thr Arg Asn Ala Asp Cys  
1355 1360 1365

Asn His Val Gly Ile Asn Phe Ile Tyr Asn Val Leu Val Asp Phe  
1370 1375 1380

Asp Asp Val Gln Glu Ala Leu Ala Gly Phe Ile Glu Arg His Gly  
1385 1390 1395

Lys Arg Leu Trp Arg Leu Arg Val Thr Ala Ser Glu Ile Arg Met  
1400 1405 1410

Val Leu Glu Asp Asp Glu Gly Asn Val Thr Pro Ile Arg Cys Cys  
1415 1420 1425

Ile Glu Asn Val Ser Gly Phe Val Val Lys Tyr His Ala Tyr Gln  
1430 1435 1440

Glu Val Glu Thr Glu Lys Gly Thr Thr Ile Leu Lys Ser Ile Gly  
1445 1450 1455

Asp Leu Gly Pro Leu His Leu Gln Pro Val Asn His Ala Tyr Gln  
1460 1465 1470

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Thr Lys Asn Ser Leu Gln Pro Arg Arg Tyr Gln Ala His Leu Val  
 1475 1480 1485  
 Gly Thr Thr Tyr Val Tyr Asp Tyr Pro Asp Leu Phe Val Gln Ser  
 1490 1495 1500  
 Leu Arg Lys Val Trp Ala Glu Ala Ala Ala Lys Ile Pro His Leu  
 1505 1510 1515  
 Arg Val Pro Ser Glu Pro Leu Thr Ala Thr Glu Leu Val Leu Asp  
 1520 1525 1530  
 Glu Asn Asn Glu Leu Gln Glu Val Glu Arg Pro Pro Gly Ser Asn  
 1535 1540 1545  
 Ser Cys Gly Met Val Ala Trp Ile Phe Thr Met Leu Thr Pro Glu  
 1550 1555 1560  
 Tyr Pro Lys Gly Arg Arg Val Val Ala Ile Ala Asn Asp Ile Thr  
 1565 1570 1575  
 Phe Lys Ile Gly Ser Phe Gly Pro Lys Glu Asp Asp Tyr Phe Phe  
 1580 1585 1590  
 Lys Ala Thr Glu Ile Ala Lys Lys Leu Gly Leu Pro Arg Ile Tyr  
 1595 1600 1605  
 Leu Ser Ala Asn Ser Gly Ala Arg Leu Gly Ile Ala Glu Glu Leu  
 1610 1615 1620  
 Leu His Ile Phe Lys Ala Ala Phe Val Asp Pro Ala Lys Pro Ser  
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 Met Gly Ile Lys Tyr Leu Tyr Leu Thr Pro Glu Thr Leu Ser Thr  
 1640 1645 1650  
 Leu Ala Lys Lys Gly Ser Ser Val Thr Thr Glu Glu Ile Glu Asp  
 1655 1660 1665  
 Asp Gly Glu Arg Arg His Lys Ile Thr Ala Ile Ile Gly Leu Ala  
 1670 1675 1680  
 Glu Gly Leu Gly Val Glu Ser Leu Arg Gly Ser Gly Leu Ile Ala  
 1685 1690 1695  
 Gly Ala Thr Thr Arg Ala Tyr Glu Glu Gly Ile Phe Thr Ile Ser  
 1700 1705 1710

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Leu Val Thr Ala Arg Ser Val Gly Ile Gly Ala Tyr Leu Val Arg  
 1715 1720 1725  
 Leu Gly Gln Arg Ala Ile Gln Val Glu Gly Asn Pro Met Ile Leu  
 1730 1735 1740  
 Thr Gly Ala Gln Ser Leu Asn Lys Val Leu Gly Arg Glu Val Tyr  
 1745 1750 1755  
 Thr Ser Asn Leu Gln Leu Gly Gly Thr Gln Ile Met Ala Arg Asn  
 1760 1765 1770  
 Gly Thr Thr His Leu Val Ala Glu Ser Asp Leu Asp Gly Ala Leu  
 1775 1780 1785  
 Lys Val Ile Gln Trp Leu Ser Tyr Val Pro Glu Arg Lys Gly Lys  
 1790 1795 1800  
 Ala Ile Pro Ile Trp Pro Ser Glu Asp Pro Trp Asp Arg Thr Val  
 1805 1810 1815  
 Thr Tyr Glu Pro Pro Arg Gly Pro Tyr Asp Pro Arg Trp Leu Leu  
 1820 1825 1830  
 Glu Gly Lys Pro Asp Glu Gly Leu Thr Gly Leu Phe Asp Lys Gly  
 1835 1840 1845  
 Ser Phe Met Glu Thr Leu Gly Asp Trp Ala Lys Thr Ile Val Thr  
 1850 1855 1860  
 Gly Arg Ala Arg Leu Gly Gly Ile Pro Met Gly Val Ile Ala Val  
 1865 1870 1875  
 Glu Thr Arg Thr Thr Glu Lys Ile Ile Ala Ala Asp Pro Ala Asn  
 1880 1885 1890  
 Pro Ala Ala Phe Glu Gln Lys Ile Met Glu Ala Gly Gln Val Trp  
 1895 1900 1905  
 Asn Pro Asn Ala Ala Tyr Lys Thr Ala Gln Ser Ile Phe Asp Ile  
 1910 1915 1920  
 Asn Lys Glu Gly Leu Pro Leu Met Ile Leu Ala Asn Ile Arg Gly  
 1925 1930 1935  
 Phe Ser Gly Gly Gln Gly Asp Met Phe Asp Ala Ile Leu Lys Gln  
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1940		1945		1950									
Gly Ser 1955	Lys	Ile	Val	Asp	Gly 1960	Leu	Ser	Asn	Phe	Lys 1965	Gln	Pro	Val
Phe Val 1970	Tyr	Val	Val	Pro	Asn 1975	Gly	Glu	Leu	Arg	Gly 1980	Gly	Ala	Trp
Val Val 1985	Leu	Asp	Pro	Thr	Ile 1990	Asn	Leu	Ala	Lys	Met 1995	Glu	Met	Tyr
Ala Asp 2000	Glu	Thr	Ala	Arg	Gly 2005	Gly	Ile	Leu	Glu	Pro 2010	Glu	Gly	Ile
Val Glu 2015	Ile	Lys	Phe	Arg	Arg 2020	Asp	Lys	Val	Ile	Ala 2025	Thr	Met	Glu
Arg Leu 2030	Asp	Glu	Thr	Tyr	Ala 2035	Ser	Leu	Lys	Ala	Ala 2040	Ser	Asn	Asp
Ser Thr 2045	Lys	Ser	Ala	Glu	Glu 2050	Arg	Ala	Lys	Ser	Ala 2055	Glu	Leu	Leu
Lys Ala 2060	Arg	Glu	Thr	Leu	Leu 2065	Gln	Pro	Thr	Tyr	Leu 2070	Gln	Ile	Ala
His Leu 2075	Tyr	Ala	Asp	Leu	His 2080	Asp	Arg	Val	Gly	Arg 2085	Met	Glu	Ala
Lys Gly 2090	Cys	Ala	Lys	Arg	Ala 2095	Val	Trp	Ala	Glu	Ala 2100	Arg	Arg	Phe
Phe Tyr 2105	Trp	Arg	Leu	Arg	Arg 2110	Arg	Leu	Asn	Asp	Glu 2115	His	Ile	Leu
Ser Lys 2120	Phe	Ala	Ala	Ala	Asn 2125	Pro	Asp	Leu	Thr	Leu 2130	Glu	Glu	Arg
Gln Asn 2135	Ile	Leu	Asp	Ser	Val 2140	Val	Gln	Thr	Asp	Leu 2145	Thr	Asp	Asp
Arg Ala 2150	Thr	Ala	Glu	Trp	Ile 2155	Glu	Gln	Ser	Ala	Glu 2160	Glu	Ile	Ala
Ala Ala 2165	Val	Ala	Glu	Val	Arg 2170	Ser	Thr	Tyr	Val	Ser 2175	Asn	Lys	Ile

0185663SeqList.txt

Ile Ser Phe Ala Glu Thr Glu Arg Ala Gly Ala Leu Gln Gly Leu  
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Val Ala Val Leu Ser Thr Leu Asn Ala Glu Asp Lys Lys Ala Leu  
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Val Ser Ser Leu Gly Leu  
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0185663SeqList.txt

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0185663SeqList.txt

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